

Observations of Brooks' Comet (d 1892) and Swift's Comet (a 1892) made at the Royal Observatory, Greenwich.
(Communicated by the Astronomer Royal.)

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The observations were made with the East, or Sheepshanks equatoreal, aperture 6·7 inches, by taking transits over two cross wires at right angles to each other, and each inclined 45° to the parallel of declination. Magnifying power, 55.

Brooks' Comet.									
Greenwich Mean Solar Time.	Observer.	♄-★ R.A.	Log factor of Parallax.	Corr. for Refraction.	♄-★ N.P.D.	Log factor of Parallax.	Corr. for Refraction.	No. of Comps.	Appt. R.A.
1892 d h m s		m s		s	' "		"		h m s
Sept. 24 12 18 58	A. C.	+ 0 23·98	9·6160	- 0·01	- 2 36·3	0·8100	- 0·3	4	7 9 37·86
Oct. 1 12 12 31	L.	+ 0 36·63	9·6091	+ 0·05	+ 8 2·2	0·8148	+ 0·5	2	...
1 12 53 32	"	+ 0 33·63	9·6133	- 0·04	- 13 2·1	0·7848	+ 0·1	2	...
1 12 18 2	B.	+ 0 37·75	9·6106	+ 0·05	+ 7 43·7	0·8106	+ 0·3	2	...
1 12 45 34	"	+ 0 33·63	9·6135	- 0·04	- 13 19·1	0·7904	+ 0·1	2	...
14 12 53 23	"	+ 0 6 38	9·5965	- 0·03	- 8 55·2	0·7955	- 0·2	2	8 11 41·90
14 12 57 2	"	+ 0 44·38	9·5960	- 0·03	- 8 37·8	0·7934	- 0·2	2	8 11 42·67
14 13 1 33	"	+ 1 15·00	9·5951	- 0·02	- 5 34·7	0·7906	- 0·2	2	8 11 43·48
14 13 4 35	"	- 0 59·00	9·5944	+ 0·03	+ 10 58·2	0·7887	+ 0·1	2	8 11 38·12
14 13 19 22	C. D.	- 0 57·00	9·5898	+ 0·03	+ 11 1·9	0·7793	+ 0·1	2	8 11 40·12
14 13 25 26	"	+ 1 17·00	9·5874	- 0·01	- 5 13·8	0·7756	- 0·1	2	8 11 45·49
14 13 29 26	"	+ 0 48·25	9·5857	- 0·02	- 8 25·6	0·7730	0·0	2	8 11 46·55
14 13 32 24	"	+ 0 11·63	9·5843	- 0·02	- 8 23·9	0·7711	0·0	2	8 11 47·16
18 13 12 58	"	- 0 10·19	9·5857	+ 0·01	+ 2 24·9	0·7897	+ 0·1	8	...
22 12 15 42	H.	- 1 5·50	9·5858	+ 0·13	+ 11 34·5	0·8246	- 0·1	4	8 39 19·70
									72 18 3·7
									37

LIII. 1,

Greenwich Mean Solar Time.	Observer.	*—* R.A.		Log factor of Parallax.	Corr. for Refraction.	*—* N.P.D.		Log factor of Parallax.	Corr. for Refraction.	No. of Comps.	Appt. R.A.		Appt. N.P.D.		Cmp. *
		m	s			'	"				h	m	o	'	
1892 Oct.	H.	22	12 29	0		6	7.9	0.8182	−0.2	1	...	...	...	...	k
		22	12 58	7	−0.04	7	32.3	0.8041	+0.7	4	...	...	...	...	l
	C. D.	22	12 58	59	+0.06	12	44.1	0.8038	−1.3	3	8 39	24.13	72	19 12.1	i
		22	13 15	38	−0.02	6	51.2	0.7955	+0.9	2	...	...	...	...	l
	A. C.	23	12 19	0	+0.09	8	19.0	0.8242	+0.2	4	...	...	...	...	m
		23	12 27	19	−0.13	13	39.6	0.8203	0.0	2	...	...	...	...	n
	B.	23	12 27	19	+0.05	4	45.7	0.8203	−0.1	2	...	...	...	...	o
		25	13 34	13	−0.04	11	41.8	0.7930	−0.2	5	8 50	28.50	74	4 8.1	p
	A. C.	25	13 36	27	+0.01	4	37.5	0.7921	+0.1	7	8 50	25.80	74	4 54.5	q
		Nov. 3	14 3	49	−0.01	3	34.4	0.8074	−0.1	3	...	...	...	...	r
1892 Oct.	T. H.	3	14 19	21	−0.03	11	36.7	0.8035	−0.1	1	9 25	13.17	80	16 48.5	s
		3	14 9	42	−0.01	3	27.8	0.8061	−0.1	2	...	...	...	...	r
	B.	6	13 48	31	−0.03	7	56.4	0.8195	−0.3	3	9 37	20.54	82	38 37.5	t
		6	13 55	38	−0.03	8	37.8	0.8181	−0.2	3	9 37	22.20	82	39 1.3	u
	A. C.	6	15 3	24	0.00	+	0 48.6	0.8062	0.0	3	9 37	31.69	82	41 40.6	v
	A. C.	23	10 58	51	0.00	14	57.0	0.2583	−0.1	2	23 47	14.11	8	59 58.6	w
	A. C.	23	10 58	51	0.00	14	57.0	0.2583	−0.1	2	23 47	14.11	8	59 58.6	w

Swift's Comet.

Notes.

On Oct. 23 Swift's Comet was extremely faint and was only suspected ; its close proximity to several faint stars increased the difficulty of accurate observation.
Brooks' Comet on Oct. 23 was large and round, with decided central condensation.
On Nov. 3 it was very faint owing to moonlight and mist. On Nov. 6 it was noted as fairly large, with a nucleus of 7.5 magnitude.

Assumed Mean Places of Comparison Stars.

Star's Name.	Mean R.A., 1892 ^o . h m s	Mean N.P.D., 1892 ^o . ° ' "	Authority.
<i>a.</i> 53 Geminorum	7 9 12.24	61 54 54.0	Paris Catalogue.
<i>b.</i> B.D. + 26° 1605	7 29 32.4	63 33.4	Bonn Observations.
<i>c.</i> B.D. + 26° 1607	7 29 45.9	63 54.4	" "
<i>d.</i> W.B. (2) VIII., 192	8 11 33.69	68 29 20.2	Weisse's Bessel.
<i>e.</i> W.B. (2) VIII., 173	8 10 56.46	68 29 12.3	" "
<i>f.</i> Lalande, 16149	8 10 26.63	68 26 14.4	Paris Catalogue.
<i>g.</i> Lalande, 16236	8 12 35.23	68 10 11.1	" "
<i>h.</i> B.D. + 19°, 2026	8 25 28.7	70 11.2	Bonn Observations.
<i>i.</i> Lalande 17260	8 40 23.18	72 6 28.4	Lalande.
<i>k.</i> B.D. + 17°, 1941	8 41 59	72 12.1	Bonn Observations.
<i>l.</i> B.D. + 17°, 1931	8 39 56	72 31.8	" "
<i>m.</i> B.D. + 17°, 1943	8 42 24	72 44.0	" "
<i>n.</i> B.D. + 17°, 1939	8 41 42	73 6.2	" "
<i>o.</i> B.D. + 17°, 1945	8 42 42	72 46.7	" "
<i>p.</i> α_1 Cancri	8 51 13.52	74 15 49.0	Greenwich Ten-Year Catalogue, 1880
<i>q.</i> α_2 Cancri	8 51 33.29	74 0 15.7	" "
<i>r.</i> B.D. + 9°, 2195	9 26 7.8	89 20.4	Bonn Observations.

Star's Name.	Mean R.A., 1892'o. h m s	Mean N.P.D., 1892'o. ° ' "	Authority.
s. ω Leonis	9 22 40.41	80 28 23.2	Greenwich Ten-Year Catalogue, 1880, and Paris Catalogue.
t. Lalande, 19042	9 36 20.95	82 46 31.7	Paris Catalogue.
u. B.F., 1383	9 40 28.18	82 47 36.5	Greenwich Ten-Year Catalogue, 1880.
v. 10 Leonis	9 31 30.49	82 40 49.7	" "
w. Groombridge, 4155	23 47 33.08	49 15 19.6	Radcliffe Catalogue.

The following observations of Swift's Comet were made on the meridian with the Transit Circle:—

Greenwich Mean Solar Time.		Observer.	Appt. R.A.	Appt. N.P.D. (Corrected for Refraction and Parallax.)
1892.	d h m s		h m s	° ' "
Sept.	17 12 30 53	A. C.	0 20 27.72	39 28 17.81
Sept.	24 11 54 34	"	0 11 39.10	40 55 18.44

The corrections applied for parallax were 0.11"06, 0.11"17 respectively.

In computing these log Δ was taken as 0.2819 on September 17, 0.2907 on September 24, these values being interpolated from Archenhold's Ephemeris (*Astr. Nach.*, 3110).

On September 24 the comet was very faint, and was observed over one wire only in R.A.

The initials L., H., A. C., B., T. H., C. D., are those of Mr. Lewis, Mr. Hollis, Mr. Crommelin, Mr. Bryant, Mr. Hudson, and Mr. Davidson respectively.

Observations of Holmes' Comet (f 1892) made at the Royal Observatory, Greenwich.
(Communicated by the Astronomer Royal.)

The observations were made with the East, or Sheepshanks Equatoreal, aperture 6·7 inches, by taking transits over two cross wires at right angles to each other, and each inclined 45° to the parallel of declination. Magnifying power, 55.

Greenwich Mean Solar Time.				Observer.	☿-★ R.A.	Log factor of Parallax.	Corr. for Refraction. s	☿-★N.P.D. + 8' 49"7	Log factor of Parallax.	Corr. for Refraction. " 0'0	No. of Comps.	Apparent R.A. h m s 0 45 51'75	Apparent N.P.D. ° ' " 51 41 19'0	Comp. ★
1892. Nov.	9	9	36 26	A. C.	- 1 12 98	8'2200	0'00	+ 8' 49"7	0'2983	+ 0'1	2	...	...	a
	9	10	48 58	"	- 1 3'60	9'0446	0'00	+ 0 31'1	0'3542	0'0	3	...	...	b
	9	11	22 53	"	+ 1 22'40	9'3552	0'00	- 1 17'8	0'3818	0'0	2	0 45 53'02	51 41 29'6	c
	10	6	17 48	L.	+ 1 17'13	9'5314	0'00	- 4 39'0	0'4866	- 0'1	2	0 45 26'34	51 45 54'8	d
	10	6	17 48	"	- 1 41'25	9'5314	- 0'01	+ 13 43'0	0'4866	+ 0'1	2	0 45 23'46	51 46 12'2	a
	10	6	25 3	A. C.	+ 1 18'33	9'5177	0'00	- 4 42'1	0'4751	- 0'1	2	0 45 27'54	51 45 51'7	d
	10	6	14 43	"	- 1 30'15	9'5368	0'00	+ 5 15'8	0'4903	+ 0'1	1	...	...	b

Comparison Stars.

Star's Name.	R.A. 1892'o.		N.P.D. 1892'o.		Authority.
	h m s	° ' "	° ' "	° ' "	
a Lalande, 1444	0 47	1·73	51 32	55·0	Paris Catalogue, 1875.
b B.D. + 38°, 128	0 46	51·3	51 40·5	...	Bonn Observations.
c W. B. (2), 0, 1092	0 44	27·63	51 43	13·2	Weisse's Bessel.
d W. B. (2), 0, 1083	0 44	6·22	51 50	59·8	" "

Note.

The comet was very bright, about 5' in diameter, with a stellar nucleus.

The initials L. and A. C. are those of Mr. Lewis and Mr. Crommelin respectively.

Royal Observatory, Greenwich:
1892 November 11.